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ERRATUM

To: H. Munkholm, shm maps of differential graded algebras, I; A characterization up to homotopy, J. Pure Appl. Algebra 9 (1976) 39–46.

In Section 3 of the above mentioned paper, [1], the proof that $i:\mathbf{DA}\to\mathbf{DASH}_h$ sends homology isomorphisms into isomorphisms is incomplete. The mistake occurs in Corollary 3.5 where we need B to be connected in case we work in $\mathbf{DA}_+$ (in order that BB be 1-connected so that Proposition 3.4 applies). The correction goes as follows. Replace the factorization of Lemma 3.2 of [1] by the one from 3.9 in [2]

$$A \xrightarrow[j]{} A \amalg T(sV\oplus V) \xrightarrow[q]{} B.$$

Since $f = qj$ is a homology isomorphism q is surjective also in degree 0 so $i(q)$ is an isomorphism by Proposition 3.6 of [1]. To see that $i(j)$ is an isomorphism one proves that j is actually a homotopy equivalence already in $\mathbf{DA}$. The obvious contraction of $sV\oplus V$ in $\mathbf{DM}$ induces a contraction of $T(sV\oplus V)$ in $\mathbf{DA}$ and that in turn is easily seen to give a homotopy from the identity map to the composition $A \amalg \eta\varepsilon$

$$A \amalg T(sV\oplus V) \to A \to A \amalg T(sV\oplus V)$$

References

[1] H. Munkholm, shm maps of differential graded algebras. I; A characterization up to homotopy, J. Pure Appl. Algebra 9 (1976) 39–96.
[2] H. Munkholm, DGA algebras as a Quillen model category; Relations to shm maps, J. Pure Appl. Algebra 13 (1978) 00–00.